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BANGALORE - 560 027

10CS/IS753

**Seventh Semester B.E. Degree Examination, June/July 2018**

**Java and J2EE**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting at least TWO questions from each part.**

**PART - A**

- 1 a. Briefly explain any six features of JAVA language. (06 Marks)
- b. Write a JAVA program to implement linear search among {10, 30, 40, 5} with key = 30, using for each in JAVA. (04 Marks)
- c. Explain the following with example :  
i) Labelled continue ii) >>> iii) Short circuit AND operator. (06 Marks)
- d. Explain the two ways of type conversion. Will the following snippet produce error? If yes how to overcome the error. byte b = 50; b = b \* 2; (04 Marks)
- 2 a. Explain the following with example :  
i) Dynamic method dispatching ii) Two uses of super. (08 Marks)
- b. Explain throw and throws statements with example. (06 Marks)
- c. Write a JAVA applet that sets the background color to blue and foreground color to red and outputs a message "shown in status window" to the status window. (04 Marks)
- d. Define inner class. (02 Marks)
- 3 a. Write a program in java to implement producer consumer problem, using threads. (06 Marks)
- b. What is the need for synchronization? Demonstrate a program using synchronized methods. (06 Marks)
- c. Explain the mechanism of event delegation needed. Give an example for using mouse event. (08 Marks)
- 4 a. Write a Java swing applet that has 2 buttons named alpha and beta, when either of the button is pressed, it should display "alpha/beta was pressed" respectively. (06 Marks)
- b. Explain components in swings. (06 Marks)
- c. Explain following with an example for each i) JLabel ii) JTextfield. (08 Marks)

**PART - B**

- 5 a. Describe the various steps of JDBC process with code snippet. (10 Marks)
- b. Explain callable statement with example? (06 Marks)
- c. Explain different types of drivers used in JDBC. (04 Marks)
- 6 a. What is Servlet? Explain phases of servlet life cycle. (06 Marks)
- b. List the advantages of servlets over CGI. (04 Marks)
- c. List and explain core classes that are provided in javax.servlet.http package. (04 Marks)
- d. Write a java servlet program to illustrate how to use session state. (06 Marks)
- 7 a. Explain the different types of JSP tags with syntax. (05 Marks)
- b. Write a JSP to create and read cookie named "UserID" that stores the value "AB123". (05 Marks)
- c. Write a JSP to create and read session attribute named "product" that stores the value "2013". (05 Marks)
- d. Describe code snippet RMI at server side. (05 Marks)
- 8 a. Write a code skeleton of session bean. (06 Marks)
- b. Explain various EJB transaction attributes. (06 Marks)
- c. Write a note on JAR file (04 Marks)
- d. Write a code skeleton of message driven bean. (04 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.